LIST OF TABLES

Table page

**Table 3-1**: Telecentric Test System Optical specifications 47

**Table 3-2**: Telescoptic Prototype System Optical Parameters. 54

**Table 3-3**: Final ALI optical specifications 60

**Table 3-4**: Revised ALI optical specifications 63

**Table 3-5**: Location of ALI temperature sensors. 79

**Table 3-6:** Estimated balloon flight exposure times. 83

**Table 4-1:** Different particle size distributions used to test the sensitivity of the aerosol retrieval. 93

**Table 4-2:** Parameters used in precision study. 108

**Table A-1:** Lens used in ALI and their specifications. 161

**Table A-2:** AOTF Specifications. 162

**Table A-3:** QSI CCD camera specifications. 163

**Table A-4:** Opto-mechanical components used in ALI 164

**Table B-1:** ALI operational science modes. 172

**Table B-2:** ALI calibration science mode specifications. 173

**Table B-3:** ALI aerosol science mode specifications. 173

**Table B-4:** ALI H2O science mode specifications. 174

**Table B-5:** ALI O2 science mode specifications. 175

**Table B-6:** ALI operational exposure time modes. 176